AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) In a printshop having resources for performing various tasks to process print jobs, a method for optimizing the performance of the printshop, the method comprising the steps of:

partitioning the printshop into autonomous cells capable of receiving and processing print jobs;

dividing the resources of the printshop between the autonomous cells, wherein each cell contains sufficient resources to complete at least one class of print job and wherein; and

assigning each print job to a selected one of the autonomous cells wherein the autonomous cell contains resources capable of independently completing the print job, the resources including equipment for performing printing tasks and the resources including printers, copiers, rollers, shrink wrappers, cutters, sealers and manual resources among others.

2. (Canceled)

3. (Previously presented) The method of claim 1 wherein the step of assigning print jobs comprises, for each given print job, determining what tasks need to be performed to complete the given print job and assigning the given print job to one of the autonomous cells that contains sufficient resources for performing the tasks that need to be completed to fully process the given print job.

4. (Previously presented) The method of claim 3 wherein the step of assigning print jobs comprises, for each given print job, determining which of the autonomous cells has sufficient available capacity to completely process the given print job.

5. (Original) The method of claim 1 wherein at least one of the

autonomous cells includes more than one machine for performing a same operation.

6.   (Previously presented) The method of claim 1 further comprising the steps of:

determining classes of print jobs; and

assigning each print job to one of the classes.

7.   (Previously presented) The method of claim 6 wherein the determination of the class of print job is done based on collecting and analyzing print job data and on the tasks required to process the print job.

8.   (Previously presented) The method of claim 6 wherein the step of assigning each print job to a selected one of the cells for processing is based in part on the classes to which the print jobs are assigned.

9.   (Previously presented) The method of claim 1 wherein a selected one of the cells is assigned multiple print jobs for concurrently processing the multiple print jobs.

10-15. (Canceled)

16.   (Currently amended) A method of partitioning a printshop into autonomous cells, comprising the steps of:

identifying products produced by the printshop;

identifying operations required for producing each of the identified products;

determining printshop resources that are required for completing the identified operations;

determining a number of printshop resources required for operations to produce the products based on customer demand for products;

partitioning printshop resources into autonomous cells based on the determined number of printshop resources required for operations to produce products based on customer demand for products, wherein each autonomous cell is independently capable of producing at least one of the identified products;

assigning a print job to a selected one of the autonomous cells for completion by the selected autonomous cell; and

dividing the print job into smaller sized lots and concurrently processing the smaller sized lots using the resources of the selected autonomous cell.

17.   (Original) The method of claim 16 wherein throughput of each autonomous cell is determined as a function of the printshop resources allocated to the autonomous cell, and wherein the printshop resources are allocated to each autonomous cell based on customer demand.

18.   (Previously presented) The method of claim 16 wherein the step of identifying products comprises identifying classes of print jobs produced by the printshop, wherein each class includes a sequence of operations that is performed to process the print jobs of the class that differs from the sequence of operations performed to process each of the other classes.

19.   (Original) The method of claim 16 wherein customer demand is estimated based on empirical data.

20-21. (Canceled)

22.   (Previously presented) The method of claim 16 wherein the assigning step is performed by a computer system.